

Title (en)

Method for recovering carboxylic acids from aqueous solutions

Title (de)

Verfahren zur Rückgewinnung der Carbonsäuren aus wässrigen Lösungen

Title (fr)

Procédé de récupération d'acides carboxyliques à partir des solutions aqueuses

Publication

EP 0732320 A1 19960918 (EN)

Application

EP 95301812 A 19950317

Priority

EP 95301812 A 19950317

Abstract (en)

Disclosed is a method for recovering carboxylic acids having from one to ten carbon atoms, and particularly formic acid, acetic acid and mixtures of formic and acetic acids, from aqueous solutions, in which the aqueous solution is contacted with solvent consisting essentially of mixed trialkylphosphine oxides in counter-current liquid-liquid extraction flow in a contacting step to thereby transfer the acids from the aqueous solution to the solvent, thus producing a raffinate relatively low in acid content and a rich solvent. The rich solvent is preferably dehydrated to separate water therefrom and yield a dehydrated rich solvent. The dehydrated rich solvent then has the acids stripped from it and the resulting lean solvent is then returned to the liquid-liquid extraction step, while the separated acids are split into their constituent components in a distillation operation.

IPC 1-7

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IPC 8 full level

C07C 51/48 (2006.01)

CPC (source: EP)

C07C 51/48 (2013.01)

Citation (search report)

- [X] US 3816524 A 19740611 - GRINSTEAD R
- [Y] US 4143066 A 19790306 - KALCEVIC VICTOR
- [Y] US 5175357 A 19921229 - VAN BRUNT VINCENT [US]
- [Y] EP 0036406 A1 19810923 - VER EDELSTAHLWERKE AG [AT]
- [A] DE 3506944 A1 19851010 - EAST CHINA INST OF CHEMICAL TE [CN]
- [X] J.W.ALTHOUSE ET AL.: "ANALYSIS OF ORGANIC EXTRACTANT SYSTEMS FOR ACETIC ACID REMOVAL FOR CALCIUM MAGNESIUM ACETATE PRODUCTION.", INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH, vol. 31, no. 8, 1992, WASHINGTON US, pages 1971 - 1981

Cited by

CN1304352C; CN114174309A; US6793777B1; US6695952B1; WO0107391A1; WO0107390A1; WO2021018717A1

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